

ABSTRACT

A video image positional relationship correction apparatus is disclosed. Coordinate conversion parameters including internal parameters of a camera and attachment parameters are used as unknown numbers. Relational expressions are produced such that the number of the relational expressions is larger than the number of the coordinate conversion parameters to be calculated. Values of the coordinate conversion parameters are calculated based on deviations between monitor coordinates of video image reference points Q1 to Q6 actually captured by the camera and displayed, and the corresponding monitor coordinates of virtual target points R1 to R6. The monitor coordinates of the virtual target points are derived from the actual coordinates of the reference points based on the values of the calculated coordinate conversion parameters. The coordinate conversion parameters are determined such that the square-sum of the deviations between the monitor coordinates of the virtual target points and the monitor coordinates of the actually captured video image reference points is the minimum. Based on the determined values of the coordinate conversion parameters, the relative positional relationship between the actual video image and the virtual video image is corrected.